



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,404	01/14/2004	Katsuhiko Tsunehara	HITA.0492	2634

7590 12/29/2006  
Stanley P. Fisher  
Reed Smith LLP  
Suite 1400  
3110 Fairview Park Drive  
Falls Church, VA 22042-4503

EXAMINER
----------

CHIN, GARY

ART UNIT	PAPER NUMBER
----------	--------------

3661

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/756,404

Applicant(s)

TSUNEHARA ET AL.

Examiner

Gary Chin

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/14/04 &amp; 8/8/05</u> .                                    | 6) <input type="checkbox"/> Other: ____.                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 1-7, the phrase “method for calculating the position of a mobile terminal” should be “method for determining the position of a mobile terminal” to be more technically correct.

As per claims 1, 8 and 17, the phrase “being transmitted and/or received on channels” (claims 1 and 8) and “being transmitted/received on channels (claim 18) in the preamble of these claims are technically unclear. Firstly, the alternative expression “and/or” is vague and indefinite. Further, it is unclear as to the location of these channels. Are they within the base stations or within the mobile terminal? It is suggested to delete the aforementioned phrases to rectify the problem. Moreover, the phrases “on channels” on line 7 of claim 1 and line 8 of claim 8, and “on the channels” on lines 6 and 8 of both claims 2 and 9 and line 8 of claim 17 should be deleted respectively as the result of the above suggestion. Furthermore, it is unclear as to how “whether or not the mobile terminal is located in close proximity to a base station” is being determined. It is suggested to change “the step (or unit) for determining if the mobile terminal is located in close proximity to a base station” to “the step (or unit) for determining if the mobile terminal is located in close proximity to a base station based upon the measured differences”. Still further, it is also unclear as to what is considered as “a common formula” recited in these claims. It is suggested to change it to “trilateration formula”. Finally, there is no clear recitation

Art Unit: 3661

in these claims as to how the position of the mobile terminal is being calculated when the mobile terminal is determined to be in close proximity to one of base stations. It is suggested to recite “calculating the position of the mobile terminal in close proximity to a base station without said trilateration formula if it is determined that said mobile terminal is in close proximity to one of said base stations” to rectify the aforementioned problem.

As per claim 2, line 3, “determining” should be “said determining” in order to avoid the antecedent basis problem. Likewise, on line 17, “between base stations” should be “between said base stations”.

As per claims 5 and 14, both on line 7, the term “the maximum value” lacks proper antecedent basis and should be changed to “a maximum value”. Further, on line 10 of claims 5, 10 and 14, “received signal quality” should be “the received signal quality” in order to avoid the antecedent basis problem.

As per claim 6, line 2, after “wherein”, “calculating” should be “said calculating”. Further, the phrase “with the position of said mobile terminal” on lines 6-7 of claim 6 and lines 5-6 of claim 15 should be “as the position of said mobile terminal”.

As per claim 7, line 6 and claim 16, line 5, the phrase “may be positioned” is vague and indefinite and should be changed to “is positioned”.

As per claim 8, the preamble is directed to a system and yet the recitation in the body of the claim is directed to method steps. Further, on line 7, “radio signals” should be “said radio signals” in order to avoid the antecedent basis problem. Finally, the phrase “by the common formula or calculated to be in close proximity to a base station” on lines 23-24 is contextually unclear and should be changed to “by said trilateration formula or calculated without said

Art Unit: 3661

trilateration formula when in close proximity to a base station” as the result of the suggestion made in the above paragraph.

As per claim 9, “base stations” on lines 16 and 21-22 should be “said base stations” to avoid the antecedent basis problem.

As per claim 17, line 18, the word “may” is vague and indefinite and should be deleted. On line 23, after “calculated”, the phrase “without said trilateration formula” should be inserted as the result of the suggestion made in the above paragraph. Finally, “a common formula” on lines 27-28 should be “said trilateration formula”.

Claims that have not been specifically indicated are rejected for incorporating the above errors from their respective parent claims by dependency.

2. Claims 1-17 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
3. The references are cited to show the related system(s). Applicant(s) should consider them carefully when responding to the current office action.
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary Chin whose telephone number is (571) 272-6959. The examiner can normally be reached on Monday-Friday 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

\*\*\*



GARY CHIN  
PRIMARY EXAMINER